REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-18 are pending in the present application. Claims 1-3, 5, and 8-18 are amended by the present amendment.

In the outstanding Office Action, the drawings were objected to; Claims 1-3 and 5-18 were rejected under 35 U.S.C. § 103(a) as unpatentable over Kingston et al. (Patent Application Publication No. US2001/0007573 A1, herein "Kingston") in view of Brardjanian et al. (U.S. patent no. 6,567,480 B1, herein "Brardjanian"); and Claim 4 was rejected under 35 U.S.C. § 103(a) as unpatentable over Kingston, Brardjanian, and Lee (U.S. patent no. 5,243,598).

Applicants thank the Examiner for the courtesy of an interview extended to Applicants' representative on June 13, 2004. During the interview differences between the claims and the applied art were discussed. Further, clarifying claim amendments as suggested by the Examiner, similar to those presented herewith, were also discussed. No agreement was reached, pending the Examiner's detailed consideration of the claim amendments upon formal submission. Arguments presented during the interview are reiterated below.

Regarding the objection to the drawings, Figure 1 is labeled "Prior Art" as suggested in the outstanding Office Action, and Figure 8 is added to show a mobile station including a receiver, a demodulator, a sampler, a correlator, and a comparator. Thus, the specification has been amended to reflect the elements of new Figure 8. The elements of Figure 8 are recited in original Claims 1 and 10. No new matter is believed to be added. Accordingly, it is respectfully requested this objection be withdrawn.

Claims 1-3 and 5-18 were rejected under 35 U.S.C. § 103(a) as unpatentable over

Kingston and Brardjanian. That rejection is respectfully traversed.

Independent Claims 1, 10, and 15 are amended to more clearly recite that a sampler

(i) generates a first sample group from a first frame by sampling each symbol in the first

frame during a first time interval and a second time interval, the first time interval and the

second time interval being offset from a start of the symbol by a first amount of time and a

second amount of time, respectively, and (ii) generates a second sample group from a second

frame by sampling each symbol in the second frame during a third time interval and a fourth

time interval, the third time interval and the fourth time interval being offset from a start of

the symbol of the second frame by a third amount of time and a forth amount of time,

respectively, and the first and second amounts of time are different from the third and fourth

amounts of time, respectively. The claim amendments find support for example in Figures 5

and 6 and in the specification at page 11, lines 23-28. No new matter is believed to be added.

Briefly recapitulating, independent Claim 1 is directed to a time slot synchronizer that

includes a sampler, a correlator, and a comparator. The sampler successively samples a

baseband signal including a plurality of frames, each frame including a plurality of symbols.

The sampler divides each symbol into a plurality of time intervals, and generates a first

sample group from a first frame by sampling each symbol in the first frame during a first time

interval and a second time interval, the first time interval and the second time interval being

offset from a start of the symbol by a first amount of time and a second amount of time,

respectively. In addition, the sampler generates a second sample group from a second frame

by sampling each symbol in the second frame during a third time interval and a fourth time

interval, the third time interval and the fourth time interval being offset from a start of the

symbol of the second frame by a third amount of time and a forth amount of time,

respectively. The first and second amounts of time are different from the third and fourth amounts of time, respectively.

In a non-limiting example, Figure 6 shows the first and second time intervals 1A and 1B and the third and fourth time intervals 1C and 1B.

The time slot synchronizer of Claim 1 advantageously achieves "a higher correlation output for a frame," as disclosed in the specification at page 13, line 31, to page 14, line 11.

Turning to the applied art, Kingston shows in Figure 2C a Finite Impulse Response (FIR) element 14 having 100 chips per symbol, and the symbol is divided into a plurality of sub-symbols, including 25 chip sub-symbols. However, as discussed during the interview, Kingston does not teach or suggest a sampler that (i) divides each symbol into a plurality of time intervals, (ii) generates a first sample group from a first frame by sampling each symbol in the first frame during a first time interval and a second time interval, the first time interval and the second time interval being offset from a start of the symbol by a first amount of time and a second amount of time, respectively, and (iii) generates a second sample group from a second frame by sampling each symbol in the second frame during a third time interval and a fourth time interval, the third time interval and the fourth time interval being offset from a start of the symbol of the second frame by a third amount of time and a forth amount of time, respectively, and the first and second amounts of time are different from the third and fourth amounts of time, respectively, as recited in Claims 1, 10, and 15.

Further, the outstanding Office Action recognizes at page 3, lines 14-16, that "Kingston et al. differ from claim 1 in that they fail to disclose sampling a baseband signal comprising a plurality of frames."

The outstanding Office Action relies on Brardjanian for disclosing that feature. However, as discussed during the interview, Brardjanian does not cure the deficiencies of Kingston discussed above.

Accordingly, it is respectfully submitted that independent Claims 1, 10, and 15 and each of the claims depending therefrom patentably distinguish over <u>Kingston</u> and <u>Brardjanian</u>, either alone or in combination.
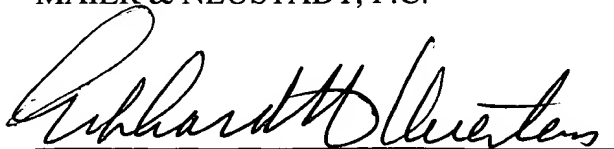
Claim 4 was rejected under 35 U.S.C. § 103(a) as unpatentable over <u>Kingston</u>, <u>Brardjanian</u>, and <u>Lee</u>. That rejection is respectfully traversed.

The outstanding Office Action relies on <u>Lee</u> for teaching a TDMA frame including 486 symbols. However, <u>Lee</u> does not cure the deficiencies of <u>Kingston</u> and <u>Brardjanian</u> discussed above. In addition, Claim 4 depends from independent Claim 1, which is believed to be allowable as noted above. Accordingly, it is respectfully submitted that dependent Claim 4 is also allowable.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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